

address on subjects of public interest before a popular assemblage. This is so singular that to omit its mention would naturally invite criticism.

It was as remarkable that Mr. Phillips never visited any foreign country, or, indeed, any part of his own. He remained in Philadelphia, except short sojourns at Saratoga, or by the seaside during the summer months, yet he lived to the age of three-score years and twelve.

With traits of personal character that assured him devoted friends; kind, and more than considerate to the young lawyers who sought his advice in their first efforts; generous, when his left hand knew not the outgivings of the right; undemonstrative in his private relations; and retiring from a participation in social exactions; concerned for the happiness of those immediately connected with him by the nearest ties of kindred; living unmarried and without such domestic claims on his leisure hours; the public life of Henry M. Phillips is worthy of the respect which the American Philosophical Society desires by this notice to record and perpetuate.

Henry M. Phillips was a typical Philadelphian.

Those influences which surround the outgrowth of capacities in the men of high merit of our city, do not stimulate their appreciation by our own people. Our most distinguished citizens in literature, science, the arts and affairs, gain their fame by the recognition awarded by other communities. If perchance so fortunate, then Philadelphia, surprised at the discovery, permits its lethargic comprehension to utter tardy applause.

Biographical Sketch of Professor Samuel D. Gross, by J. M.

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(Read before the American Philosophical Society, December 19, 1884.)

Samuel Dent Gross was born in the neighborhood of Easton, Pennsylvania, on July the 8th, 1805. At school he was an industrious boy, and he received a good education at the Wilkesbarre Academy and the Lawrenceville High School. He never went to college; but when at the age of nineteen he began to read medicine, it was evident that the young votary of science had been accustomed to intellectual labor, and was taking up his professional studies with no untrained mind.

On enrolling himself as a student at the Jefferson Medical College, of Philadelphia, he was at the same time an office pupil of Professor George McClellan, if one of the most eccentric, also one of the most original and successful surgeons of his day; and it is very likely that young Gross, who through life preserved a veneration for his brilliant preceptor, got his bias for surgery from this association. And how he worked as a student! Tales are still current at the College, transmitted through janitors and college servitors, and losing nothing in coloring by the diffusion through

the successive classes the eminent professor subsequently taught, of how immense had been his labors; how he rose with the early dawn; was never seen without a book under his arm; and had to be turned out from the anatomical rooms by the wearied attendants when the hour for closing them arrived. Certain it is he worked with his whole heart; and when he graduated in 1828 he was a noted man in his class.

He began the practice of his profession in a little office in Fourth street, in Philadelphia, and it is said that he had among the visitors who dropped in on him his future colleague, Joseph Pancoast. More friendly visitors than patients, it is to be feared, came to his rooms; for after about two years, his patrimony being nearly spent, he gave up the struggle in a great medical centre and returned to Easton. But he carried with him evidence of his love of learning and of his indomitable perseverance. He had in the short time translated from the French and the German works on General Anatomy, on Obstetrics, on Operative Surgery, and he had published his treatise on "The Anatomy, Physiology, and Diseases of the Bones and Joints." He also took away with him a wife, a lady of English descent of many accomplishments, who proved to him a true helpmate in his arduous career.

It was not long before Dr. Gross became a leading practitioner in the flourishing little town of Easton, and his scientific knowledge was so well appreciated that he was offered the Chair of Chemistry in the well-known College there seated, in Lafayette College. He declined it; but finding that within him which impelled him to become a teacher, he relinquished his growing practice to accept the demonstratorship of anatomy in the Medical College of Ohio, at Cincinnati. His stay at Easton had not been barren in additions to his scientific acquirements. He was constantly at work in a dissecting-room which he built at the foot of his garden. Here, too, he made a series of most careful observations on the rapidity with which articles taken into the stomach are excreted by the kidneys; and investigated the temperature of the venous blood, which he found as an average to be 96° Fahr. Further, he wrote a considerable part of a treatise on descriptive anatomy, in which an English in place of a Latin nomenclature was employed. This work was never finished; the experiments on the blood were published at Cincinnati in the second volume of the *Western Medical Gazette*.

As a demonstrator in the Medical College of Ohio, which he joined in the autumn of 1833, Dr. Gross was very successful. But he did not long remain in this position; for after the work of two sessions he accepted the Chair of Pathological Anatomy in the Medical Department of the Cincinnati College. He threw himself with even more than his usual ardor into the subject, and the number of specimens he studied and collected was great, and the extent of his reading enormous. It was the pursuit of Pathological Anatomy, on which he gave the first systematic course delivered in this country, which made him so learned and skilled a surgical diagnostician, and he cherished through life a great devotion to the

branch. Nor was his association with it limited to the four years he taught it from the professor's chair. His "Elements of Pathological Anatomy," issued in 1839 in two octavo volumes of more than five hundred pages each, did more to attract attention to the subject than anything that had ever been done in this country. The book, illustrated profusely with woodcuts and with several colored engravings, reached three editions. It is a mine of learning, and its extended references make it valuable to this day. Its merits have been fully recognized abroad; and on no occasion more flatteringly than when the great pathologist, Virchow, at a dinner given to Dr. Gross at Berlin in 1863, complimented him publicly on being the author, and, pointing to the volume which he laid upon the table, gracefully acknowledged the pleasure and instruction with which he had often consulted it. As another acknowledgment of its merits, we find that soon after the publication of the second edition the Imperial Royal Society of Vienna made Dr. Gross an honorary member.

Dr. Gross remained six years in Cincinnati, popular as a teacher, and gradually acquiring a large general practice; but with a stronger and stronger predilection for surgery. It was this chiefly which led him to accept the Professorship of Surgery in the University of Louisville; and with the removal to Louisville in 1840 Dr. Gross' national reputation may be said to begin. Patients flocked in on him from all sides. He soon became the leading surgeon of the Southwest, being often called away long distances into the interior of Kentucky and adjacent States. He lived in a large house in a very hospitable manner, and with a young family around him the house was gay and pleasant, and a centre for men and women of mark.

But neither the claims of practice, nor the demands of social life, quenched his thirst for work. He published, besides many papers in the *Western Journal of Medicine and Surgery*, a most valuable monograph on the "Nature and Treatment of Wounds of the Intestines," which contained many original experiments and observations. He printed full biographies of Daniel Drake and of Ephraim McDowell,—the surgeon who had the boldness to be the first to perform ovariectomy, and through whose boldness, it has been computed, thousands of years have been added to human life. He wrote a lengthy report on the "Results of Surgical Operations in Malignant Disease;" published a treatise on "Diseases of the Urinary Organs," which soon became an acknowledged authority, and has passed through several editions; wrote a work on "Foreign Bodies in the Air Passages," from which all subsequent authors have largely copied their facts, and of which the distinguished laryngologist, Morrell Mackenzie, has declared that it is doubtful whether it ever will be improved upon. Part of all the enormous labors necessary to complete these and other literary undertakings was performed in New York, where Dr. Gross passed the winter of 1850-51, occupying the Chair of Surgery in the University of New York, which had been rendered vacant by the retirement of the then most famous operative surgeon of this country, Valentine Mott.

But, however pleasant he found the social life of the great city, he deemed it best for his own interests not to tarry there, and he returned to Louisville; his late colleagues received him with open arms, and his successor, Dr. Eve, with generous abnegation, retired to let him renew his teachings from his old chair. It seemed that nothing would again take Dr. Gross away from Louisville, where he became a very prominent citizen, in whose reputation all took pride. But in the spring of 1856 came the offer which he had not the heart to resist; the call from his Alma Mater to fill the Chair of Surgery, vacated by the most popular professor of the branch in this country; the idol of the largest classes then assembling in any medical school in America. To succeed Thomas D. Mutter was a trial to any one. But Dr. Gross, conscious of his powers as a teacher, in the prime of life and of vigor, ambitious to connect his name forever with that of the College where he had been educated and which a band of eminent men had made so flourishing, accepted the task without misgivings, and the result was unmixed success for himself and great benefit to the Institution. Many were the remonstrances against his leaving the home of his adoption, and he did so, he tells us himself in his inaugural address, against the inclinations and wishes of his family. Moreover, he was very loth to sever his connection with the University of Louisville "for sixteen years the pride and solace of my professional life." And it was the simple truth when he stated that in making the change and coming to Philadelphia, he, the most noted surgeon of the Southwest, had left behind him an empire of Surgery.

His inaugural address was very favorably received. His impressive voice, his splendid intellectual appearance, the earnestness and force of his words, the latent power which all his utterances and actions showed, carried away his audience; and when in solemn tones he spake these words of his peroration "Whatever of life, and of health, and of strength, remains to me, I hereby, in the presence of Almighty God and of this large assemblage, dedicate to the cause of my Alma Mater, to the interests of Medical Science, and to the good of my fellow-creatures," it was felt that a man of great strength and earnest endeavor had come among us.

Never were thoughts more faithfully put into action. Dr. Gross was indefatigable, and became a celebrated teacher, deeply devoted to the school, the reputation of which he enhanced greatly. Indeed, it may be said, without injustice to any one, that for years he was the most commanding figure and the most popular teacher in it. Nor is it enough to judge him only by those around him or who held similar chairs in other institutions. It is not the recollection of many acts of encouraging kindness from an older to a younger man; it is not the pride of a colleague in the great reputation of one to whom all looked up,—which makes the writer of these lines say that in his profession Samuel D. Gross takes rank with the very few of the most renowned teachers of his day. To assign him his proper position he must be named with the Hyrtls, the Trouseaus, the Pagets. Less finished in eloquence he may have been, but in

perspicuity and impressiveness and in influence on his hearers he was not one whit behind. Seeing him standing in his lecture room, you saw the man at his best. The learning, the method of his discourse, its clearness and fullness were not more admirable than the force and directness of the words which, uttered in his deep and agreeable voice, sank into the minds of his youthful audience. Years afterwards men whose hair was turning gray would cite the strong words of the lesson the great teacher had made part of the guiding thought of their daily lives.

His didactic lectures were probably his best, though his clinical discourses were also models of perspicuity. He was least happy in his addresses, delivered as introductions or valedictions, or on special occasions. During his long and busy life he wrote many of them, some of considerable historical value, such as the Life of Mott, of John Hunter, a discourse on Ambrose Paré, an oration in honor of Ephraim McDowell. As these discourses were always written out, he read them from manuscript. But he was not a good reader, and no one to hear him would suppose that it was the same man who, great professor that he certainly was, had, when speaking without notes to his class, their unflinching, devoted attention. Strange to say, too, for one who wrote so well, the addresses show faults which appear nowhere else. They do not possess the art of leaving things unsaid, hence there are at times repetitions in them, marring their general efficiency. They have force—for it was impossible for this strong man to do anything that has not force—but they lack literary perspective.

Nothing of the kind, however, appears in his scientific writings. On the contrary, they are as concise, as vivid as it is possible to be. Nothing but strong thoughts, nothing but clear words. And Dr. Gross acquired this excellent style to such perfection that he wrote pages without a single correction. A most critical proof-reader once informed the writer, that of all the authors he had ever known, Dr. Gross altered least, his proof was the cleanest, there was scarcely a correction to be made or suggested.

His literary pursuits were unremitting during his residence in Philadelphia. Memoirs, reviews, essays on surgical subjects appeared in rapid succession; no sooner was one done than another was under way. In conjunction with Dr. T. G. Richardson, he was for a time editor of a flourishing journal, the North American Medical Chirurgical Review. He was also editor of, as well as chief contributor to a volume bearing the title of "Lives of Eminent American Physicians and Surgeons of the Nineteenth Century." And in 1876, as a contribution to the literature of the Centennial year, appeared a lengthy and extraordinary learned history of American Surgery from 1776 to 1876. As an instance of the rapid manner in which, if necessary, he could work, may be mentioned, that at the outbreak of the Civil War, he composed a pocket manual of Military Surgery in nine days, which was largely used by the young surgeons in the service of the United States, was soon republished in Richmond and equally employed by the surgeons of the Southern armies. A Japanese

translation of this little work appeared in 1874, and is still in use among the military surgeons of this enterprising nation.

But the great work he completed in Philadelphia, one by which his name will be long remembered, is his "System of Surgery," a work of which the first edition was published in two very large, profusely illustrated octavo volumes in 1859, and which in 1882 reached its sixth edition. The labor on it, and on the successive editions which brought it up to its present perfection, was enormous. Rising early, working late, writing with an assiduity that only a man of his wonderful physique could have kept up, he generally gave from five to eight hours a day to the cherished project, no matter what the interruptions or whatever else he had to do. Often, too, he would think out, while driving about town on his professional visits, the subject he was engaged on, and commit these thoughts to paper, on his return home, before he took rest or food.

The treatise on Surgery has become everywhere a standard authority. "His work is cosmopolitan, the surgery of the world being fully represented in it," says the Dublin Journal of Medical Science. "Long the standard work on the subject for students and practitioners," is the verdict of the London Lancet of May of this year, on the twenty-three hundred and eighty-two pages of the last edition. A Dutch translation was issued in 1863.

Dr. Gross always took the keenest interest in every question relating to his own profession and in its honor and advancement. He was a very constant visitor at Medical Societies in various parts of the United States and in Great Britain. He was probably known personally to more physicians and men of science than any other man in the United States, and wherever he went he had many followers and admirers. Most of the prominent surgeons of England were his personal friends. His interest in Medical Societies never flagged, and late in life he became the founder of two very flourishing ones, of the Academy of Surgery of Philadelphia and of the American Surgical Association. He served as president of both. In 1868 we find him as President of the American Medical Association at its meeting in Washington; and in 1876 as the President of an International Medical Congress in session at Philadelphia. He was a member of most of the noted medical societies of this country, of the Academy of Natural Sciences, and of this Society. He was also a member of many learned societies abroad; among them, of the Royal Medical Chirurgical Society of London, the Clinical Society of London, the Imperial Medical Society of Vienna, the Medical Society of Christiana, the Royal Society of Public Medicine of Belgium.

But his highest foreign honors were conferred upon him by the three great English Universities. D.C.L. of Oxford, in 1872, at the one thousandth commemoration of the University; LL.D. of Cambridge in 1880, in the same list with Brown-Sequard, with Donders, with Joseph Lister; LL.D. of Edinburgh *in absentia*, a compliment the more marked since it was only shared with Tennyson and a few others of great distinction,—the renowned American Surgeon carried honors which

few of his countrymen have ever borne together. His welcome at Oxford on Commemoration Day was very enthusiastic. His commanding appearance made him conspicuous even among the distinguished men who surrounded him, and a lady who was present told the writer that she felt a glow of patriotic pride in witnessing his warm reception and hearing the flattering remarks his splendid bearing elicited. At Cambridge the Public Orator addressed him as "*Patriæ nostræ ad portus nuper advectus est vir venerabilis quem inter fratres nostros Transatlanticæ scientiæ Chirurgicæ quasi alterum Nestorem nominare ausim.*" Of American colleges, to their shame be it spoken, only two, Jefferson College in 1861, and the University of Pennsylvania in 1884, bestowed on him any honorary degree in recognition of his great literary and scientific merit.

In March, 1882, Dr. Gross found that his physical strength was scarcely adequate to the arduous labors of his chair, and, while mentally as fit as ever, he resigned his cherished Professorship of Surgery. The Trustees at once elected him Emeritus Professor, and it was a great gratification to him to find that, in dividing the chair into two, they selected his son, Dr. Samuel W. Gross, to fill one part of it.

The remaining years of Dr. Gross's life were passed in pleasant retirement, but not idly. He had for years in Philadelphia been busy as a consulting Surgeon, and in a large office practice, and to a certain amount of this he attended to the last, his great reputation bringing him still many a patient from a distance. He also wrote diligently on an autobiography, published a paper "*On the value of early operations in Morbid Growths;*" another "*On the best means of Training Nurses for the Rural Districts,*" a subject in which he was much interested; and composed two essays, one of them, on "*Wounds of the Intestines,*" but a few weeks before his death. His hospitality, his genial manners were the same as ever; nay, advancing years softened the whole man, and made him more benign and more and more beloved. He was delightful in his own home, always surrounded by friends, adored by his family. The best of fathers, he had the constant companionship and care of the most devoted of children.

In the autumn of 1883 he showed symptoms of a weak heart; his feet were swollen, partly from dropsy, partly from rheumatic gout, and he had a long attack of bronchial catarrh. But he improved and held his own fairly well, notwithstanding signs that his digestive functions were failing, until after a severe cold in March, these began to give way entirely, and he died of exhaustion, May the 6th, after a long and most trying illness, which he all along regarded as his last. The deepest sympathy and affection were everywhere expressed for him. Telegrams and letters came daily, inquiring after him; old pupils, busy men, traveled hundreds of miles to grasp him once more by the hand. To very many his death was a deep personal sorrow.

An autopsy, made at his own request, showed that the stomach and heart were degenerating. He had lived out the life of possible strength; to have lived longer would have been to enter upon a life of suffering. His death

saved him from protracted inaction and pain, from what Heine, in his own case, has pathetically bewailed as the "mattress grave." By special directions in Dr. Gross's will the body was cremated, and the ashes have been placed beside the coffin of his wife in Woodlands Cemetery.

Such is a sketch of the life of this prodigious worker. An original contributor to the science for which he had a fondness; a widely known practical surgeon; an admirable, most learned writer; a great teacher exerting an influence which will long survive him,—Dr. Gross occupied the foremost rank in the medical profession. It was evident from his student days that he was to be a man of rare distinction:

"Mens ardua semper
A puero, tenerisque etiam fulgebat in annis
Fortune majoris honos."

He, certainly, was of the men whose high fortune throws its shadows before from the earliest years. The youth showed what the mature man was; the old man was but the youth with the promise fulfilled, and with honors gracefully worn that no one ever doubted would be attained. A part of his extraordinary fame is due to the circumstances under which he worked. He was the first writer on this continent who, with anything like gift of expression, brought together and elaborated the truths of surgical science, and partly this, but chiefly the excellence of his labors, extended his reputation in all directions beyond his own country. In acquiring fame for himself, he added to her fame. Conspicuous in many ways, Samuel Dent Gross stands forth a marked personality among the eminent men of our or of any generation.

Stated Meeting, Dec. 19, 1884.

Present, 15 members.

President, Mr. FRALEY, in the Chair.

Letters of acknowledgment were received from the University of California and the Royal Society of Victoria, Melbourne (112, 113).

Letters of envoy were received from the Argentine Observatory, the Department of Internal Affairs at Harrisburg, and Mrs. John Biddle of Philadelphia.

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